Environmental Assessment Checklist

Project Name: MSO East FY18 PCT's
Proposed Implementation Date: 2017 & 2018
Proponent: Missoula Unit, Southwest Land Office, Montana DNRC
County: Missoula

Type and Purpose of Action

Description of Proposed Action:

The Missoula Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the MSO East FY18 pre-commercial thinning projects. The projects are located SW of Potomac, MT. (refer to vicinity & project maps in Attachment A) and include the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools			
Public Buildings			
MSU 2nd Grant			
MSU Morrill			
Eastern College-MSU/Western College-U of M			
Montana Tech			
University of Montana			
School for the Deaf and Blind			
Pine Hills School			
Veterans Home			
Public Land Trust			
Acquired Land	**Sec 6 & 7 T12N R15W; Sec 1,2 & 3 T12N R16W**	**3,200**	**220**

Objectives of the projects include:

- Increase growth within treated stands
- Concentrate growth in fewer trees to attain merchantable size in a shorter time frame.
- Increased tree vigor to reduce the threat of insect and disease infestation.

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	
Clearcut	
Seed Tree	
Shelterwood	
Selection	
Commercial Thinning	
Salvage	
Total Treatment Acres	
Proposed Forest Improvement Treatment	
Pre-commercial Thinning	220
Planting	
Proposed Road Activities	
New permanent road construction	
New temporary road construction	
Road maintenance	
Road reconstruction	
Road abandoned	
Road reclaimed	
Other Activities	

Duration of Activities:	Summer/fall 2017 & 2018
Implementation Period:	Summer/fall 2017 & 2018

The lands involved in this proposed project are held in trust by the State of Montana. (Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11). The Board of Land Commissioners and the DNRC are required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run for the beneficiary institutions (Section 77-1-202, MCA).

The DNRC would manage lands involved in this project in accordance with:

- The State Forest Land Management Plan (DNRC 1996),
- Administrative Rules for Forest Management (ARM 36.11.401 through 471),
- The Montana DNRC Forested State Trust Lands Habitat Conservation Plan (HCP) (DNRC 2010)
- all other applicable state and federal laws.

Project Development

SCOPING:

DNRC specialists: Jeff Collins-Hydrologist, Soil Scientist & Garrett Schairer-Wildlife Biologist were consulted during project development.

Issues and concerns were incorporated into project planning and design and would be implemented/addressed in associated contracts.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED: *(Conservation Easements, Army Corps of Engineers, road use permits, etc.)*

- **Montana Department of Environmental Quality (DEQ)-** DNRC is classified as a major open burner by DEQ and is issued a permit from DEQ to conduct burning activities on state lands managed by DNRC. As a major open-burning permit holder, DNRC agrees to comply with the limitations and conditions of the permit.

- **Montana/Idaho Airshed Group-** The DNRC is a member of the Montana/Idaho Airshed Group which was formed to minimize or prevent smoke impacts while using fire to accomplish land management objectives and/or fuel hazard reduction (Montana/Idaho Airshed Group 2006). The Group determines the delineation of airsheds and impact zones throughout Idaho and Montana. Airsheds describe those geographical areas that have similar atmospheric conditions, while impact zones describe any area in Montana or Idaho that the Group deems smoke sensitive and/or having an existing air quality problem (Montana/Idaho Airshed Group 2006). As a member of the Airshed Group, DNRC agrees to burn only on days approved for good smoke dispersion as determined by the Smoke Management Unit.

- **United States Fish & Wildlife Service**- DNRC is managing the habitats of threatened and endangered species on this project by implementing the Montana DNRC Forested Trust Lands HCP and the associated Incidental Take Permit that was issued by the United States Fish & Wildlife Service (USFWS) in February of 2012 under Section 10 of the Endangered Species Act. The HCP identifies specific conservation strategies for managing the habitats of grizzly bear, Canada lynx, and three fish species: bull trout, westslope cutthroat trout, and Columbia redband trout. This project complies with the HCP. The HCP can be found at www.dnrc.mt.gov/HCP.

ALTERNATIVES CONSIDERED:

No-Action: The proposed pre-commercial thinning would not occur. The stands would remain at overstocked levels with low growth rates.

Action Alternative (Provide a brief description of all proposed activities):

Turkey Trot PCT Units 1 & 2:
The proposed units would be hand thinned to an approximate 14' spacing. Preferred leave trees would be WL, PP, DF, and LPP. Residual stand densities after thinning would be 200-225 trees per acre (TPA). In unit 1, approximately 1,327 TPA would be removed. Approximately 2,225 TPA would be removed in unit 2. The stands are currently overstocked and the post thin spacing would support more optimum conifer growth and health. Along the northern section line of unit 1, slash would be piled a 66 feet interior, all other slash would be lopped and scattered with a lop height of 18 inches. No slash would be left in SMZs.

Pokin Holes:
The proposed unit would be mechanically thinned to an approximate 14' spacing. Preferred leave trees would be WL, PP, DF, and LPP. Residual stand densities after thinning would be 200-225 trees per acre (TPA). Approximately 1,152 TPA would be removed. The stand is currently overstocked and the post thin spacing would support more optimum conifer growth and health. All slash would be masticated to a height less than 18 inches. No slash would be left in SMZs.

Impacts on the Physical Environment

Evaluation of the impacts of the No-Action and Action Alternatives including **direct, secondary, and cumulative** impacts on the Physical Environment.

VEGETATION:

Vegetation Existing Conditions:

Turkey Trot PCT Units 1 & 2 (134 acres):
Both units are dominated by Douglas-fir and ponderosa pine. A portion of the ponderosa pine were planted when the parcel was owned by a large industrial landowner. Although no larch or lodgepole appeared in the plot data, there are a small percentage of each species scattered throughout both units. There are approximately 1,545 stems per acre in unit 1 and 2,425 stems per acre in unit 2, with the majority being in the 1" dbh category. However, all DBH ranges in the 0-6" category are represented. Trees exist together, regardless of size class, in large clumps 10-15 acres in size. Openings created by past harvest are dominated by grass and brush, limiting conifer growth.

Pokin Holes PCT:
(86 acres) Pokin holes has a very similar stand composition and past planting history as Turkey Trot. Pockets of planted ponderosa pine can be found within the unit, as well as 10-15 acre clumps of Douglas-fir and ponderosa pine. The noticeable difference between the two projects is the size class. Overall the trees in this unit are larger in size, especially in the ponderosa pine, with many of the stems existing in the 4" dbh size class. However, similarly to Turkey Trot all size classes from 0-6" dbh are represented.

Vegetation	Impact								Can Impact Be Mitigated?	Comment Number
	Direct & Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
No-Action										
Noxious Weeds		**X**				**X**				
Rare Plants	**X**				**X**					
Vegetative community		**X**				**X**				**2**
Old Growth	**X**				**X**					
Action										
Noxious Weeds		**X**				**X**			**y**	**1**
Rare Plants	**x**				**X**					
Vegetative community	**x**				**X**					
Old Growth	**x**				**X**					

Comments:

1. Existing weeds, mainly knapweed and houndstongue are common in the Potomac valley, especially along roads and disturbed areas. Increased activity in the project areas, as well as a more open canopy, can lead to an increased risk of noxious weeds.
2. Competition among conifers would be reduced, allowing the remaining stands to capture more water, sunlight and nutrients, thereby having a positive direct, secondary and cumulative impact.

Vegetation Mitigations:

- DNRC systematically completes roadside spraying in the Potomac valley, yet noxious weeds continue to occur, spread by disturbance, equipment operations, animals and wind. Project areas would be monitored for noxious weeds after implementation and herbicide may be applied when and if needed.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions:

Soil Disturbance and Productivity	Impact								Can Impact Be Mitigated?	Comment Number
	Direct & Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
No-Action										
Physical Disturbance (Compaction and Displacement)	**X**				**X**					
Erosion	**X**				**X**					
Nutrient Cycling	**X**				**X**					
Slope Stability	**X**				**X**					

Soil Disturbance and Productivity	Impact								Can Impact Be Mitigated?	Comment Number
	Direct & Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
Soil Productivity	**X**				**X**					
Action										
Physical Disturbance (Compaction and Displacement)		**X**				**X**			**Y**	**1**
Erosion		**X**				**X**			**Y**	**1**
Nutrient Cycling		**X**				**X**			**Y**	**2**
Slope Stability	**X**				**X**					
Soil Productivity		**X**				**X**			**Y**	**2**

Comments:

1. Areas of high clay content soils occur in the area that are prone to rutting if operated on when wet. If mechanical thinning and or mastication/chipping is used to thin, soil compaction and disturbance (rutting) are possible direct and cumulative impacts that are expected to be minor.

2. If thinned by hand, the unit would be hand piled and burned were needed. Some nutrients would be concentrated in areas where slash is piled. Nutrients would be well-distributed where slash is lop-and-scattered

Soil Mitigations:

- Mechanical thinning would be limited to slopes less than 45% to reduce disturbance and erosion. Equipment operations and road use would be limited to relatively dry soil conditions to prevent rutting. Slash from the lop-and-scatter thinning process would be left in the units to mitigate erosion risks. On-site administration would identify if additional erosion control such as water-bars or slashing is needed if mechanical operations cause above average disturbance on localized areas.

- Residual slash from cut trees would be lopped and scattered to 18 inches and left within the unit. Nutrients would be available to soils as they decompose.

WATER QUALITY AND QUANTITY:

Water Quality and Quantity Existing Conditions: The average slope for all units ranges from 5% up to 40%. No riparian areas or SMZ's are located within any thinning units. Water quality is impacted by road use and inadequate road drainage on portions of roads in the Potomac valley and mixed uses of timber harvest, grazing and rural development.

Water Quality and Water Quantity	Impact								Can Impact Be Mitigated?	Comment Number
	Direct & Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
No-Action										
Water Quality		**X**				**X**				
Water Quantity		**X**				**X**				
Action										
Water Quality		**X**				**X**			**Y**	**1**
Water Quantity		**X**				**X**			**Y**	**2**

Comments:

1. The proposed combination of thinning by hand or with mechanical methods is expected to cause minor soil impacts/erosion and is unlikely to cause impacts to water quality. Access roads currently meet BMP's and road use is unlikely to result in measurable impacts to off-site sedimentation or water quality.

2. The removal of overstocked trees has a low potential to increase runoff from decreased interception and transpiration; due to moderate precipitation and retaining well stocked and spaced conifers to maximize growth. Any potential change in water yield is expected to be minor and unlikely to be measurable or deliver sediment off-site to surface waters.

Water Quality & Quantity Mitigations:

- BMP's would be implemented on all roads and within the units. Unit boundaries were all buffered to exclude the SMZ's. The Montana Administrative Rules for Forest Management; Watershed Management and watershed RMS would be implemented.

- Thinning operations would be restricted to dry or frozen conditions to avoid road damage which could lead to increased runoff.

Fisheries Existing Conditions:

Comments:

There are no streams containing fish within the project units and no sediment impacts are expected with either the No-Action or Action Alternative. No fisheries streams occur within the proposed units. Existing roads have been recently improved to meet BMPs associated with the Ashby access road reconstruction. Should the Action Alternative be implemented, road drainage on existing roads would be maintained concurrent with hauling operations

Fisheries Mitigations:

1. The Montana Administrative Rules for Forest Management; Watershed Management and watershed RMS would be implemented. BMP's would be implemented on all roads and within the unit. Unit boundaries were all buffered to exclude the SMZ's. Slash from the lop-and-scatter thinning process would be left in the unit.

WILDLIFE:

Evaluation of the impacts of the No-Action and Action Alternatives including **direct, secondary, and cumulative** impacts on Wildlife (including unique, endangered, fragile, or limited environmental resources).

No-Action: Existing stands would continue to mature in a fairly dense condition. Stand growth and maturation would continue at relatively slow speeds, which would delay usefulness of these stands longer into the future for a variety of wildlife that use larger diameter forested conditions. No further potential for disturbance to any wildlife species would be anticipated. Continued wildlife use at levels similar to present conditions would be anticipated.

Action Alternative (see Wildlife table below):

Wildlife	Impact								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
Threatened and Endangered Species										
Grizzly bear *(Ursus arctos)* Habitat: Recovery areas, security from human activity		**X**				**X**			**Y**	**1**
Canada lynx (*Felix lynx)* Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone	**X**				**X**					**2**
Yellow-Billed Cuckoo (*Coccyzus americanus*) Habitat: Deciduous forest stands of 25 acres or more with dense understories and in Montana these areas are generally found in large river bottoms	**X**				**X**					**2**
Sensitive Species										
Bald eagle *(Haliaeetus leucocephalus)* Habitat: Late-successional forest	**X**				**X**					**2**

Wildlife	Impact								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
more than 1 mile from open water										
Black-backed woodpecker *(Picoides arcticus)* Habitat: Mature to old burned or beetle-infested forest	**X**				**X**					**2**
Coeur d'Alene salamander *(Plethodon idahoensis)* Habitat: Waterfall spray zones, talus near cascading streams	**X**				**X**					**2**
Columbian sharp-tailed grouse *(Tympanuchus Phasianellus columbianus)* Habitat: Grassland, shrubland, riparian, agriculture	**X**				**X**					**2**
Common loon *(Gavia immer)* Habitat: Cold mountain lakes, nest in emergent vegetation	**X**				**X**					**2**
Fisher *(Martes pennanti)* Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian		**X**				**X**			**Y**	**3**
Flammulated owl *(Otus flammeolus)* Habitat: Late-successional ponderosa pine and Douglas-fir forest		**X**				**X**			**Y**	**4**
Gray Wolf *(Canis lupus)* Habitat: Ample big game populations,		**X**				**X**			**Y**	**5**

Wildlife	Impact								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
security from human activities										
Harlequin duck *(Histrionicus histrionicus)* Habitat: White-water streams, boulder and cobble substrates	**X**				**X**					**2**
Northern bog lemming *(Synaptomys borealis)* Habitat: Sphagnum meadows, bogs, fens with thick moss mats	**X**				**X**					**2**
Mountain plover (*Charadrius montanus*) Habitat: short-grass prairie & prairie dog towns	**X**				**X**					**2**
Peregrine falcon *(Falco peregrinus)* Habitat: Cliff features near open foraging areas and/or wetlands	**X**				**X**					**2**
Pileated woodpecker *(Dryocopus pileatus)* Habitat: Late-successional ponderosa pine and larch-fir forest	**X**				**X**					**2**
Townsend's big-eared bat *(Plecotus townsendii)* Habitat: Caves, caverns, old mines	**X**				**X**					**2**
Wolverine *(Gulo gulo)*	**X**				**X**					**2**
Big Game Species										

Wildlife	Impact								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
Elk		**X**				**X**			**Y**	**6**
Whitetail		**X**				**X**			**Y**	**6**
Mule Deer		**X**				**X**			**Y**	**6**
Bighorn Sheep	**X**				**X**					
Other										

Comments:

1. The project area is outside of the grizzly bear recovery zone and the 'non-recovery occupied habitat' as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones. Occasional use by grizzly bears could occur as bears continue moving out of the recovery zone to the north of the project area and grizzly bears have been documented in the vicinity in the past. Activities would occur during the non-denning period, thus disturbance to grizzly bears could occur. Negligible changes to grizzly bear habitats would occur. No changes to open road densities, security habitats, or human–related food, garbage, or other unnatural grizzly bear attractants would occur.

2. The project area is either out of the range of the normal distribution for this species or suitable habitat is not present. Thus, no direct, indirect, or cumulative effects would be anticipated.

3. Up to 27 acres of preferred fisher covertypes would be thinned, however many of these potential future habitats are relatively dry with higher percentages of Douglas-fir and ponderosa pine than generally found in more suitable fisher types. Some of these preferred covertypes could develop into marginal upland habitats in the future. Proposed activities in preferred covertypes could improve tree growth, which could facilitate development of attributes that would enable fisher use of these stands sooner than if left untreated. Activities in upland fisher habitats would not change habitat availability, but could alter overall habitat quality slightly with decreases in tree density.

4. Roughly 220 acres of flammulated owl habitats would be thinned, which would further open the canopy while favoring western larch, ponderosa pine, and Douglas-fir. The more open stand conditions, the retention of fire adapted tree species, and the maintenance of snags would move the proposed project area toward historical conditions, which is preferred flammulated owl habitat. Proposed activities could occur during the latter part of the flammulated owl nesting season, which could introduce some disturbance of nesting owls, but activities would not affect nesting structures.

5. Gray wolves are in the vicinity and could be using the project area for hunting, breeding, or other life requirements. Proposed activities would not occur during the spring when wolves are most sensitive at den or rendezvous sites. Some deer and elk winter range exist in portions of the project area (see comment 6). Minor changes to existing thermal cover on these winter range areas would be anticipated, but no appreciable change in big game use would be anticipated, thus limited effects to wolf prey species would be anticipated.

6. Elk and deer likely use the project area much of the non-winter period. Approximately 105 acres of white-tailed deer winter range and 135 acres of elk winter range exists in the proposed thinning units. Minor reductions to the thermal cover attributes in these stands would be anticipated with the proposed activities. Negligible changes to security habitat would occur, but no changes to open roads or motorized human access would occur.

Wildlife Mitigations:

- Motorized public access would be restricted at all times on restricted roads that are opened for proposed activities.
- Contractors and purchasers conducting contract operations would be prohibited from carrying firearms while on duty.
- Food, garbage, and other attractants would be stored in a bear-resistant manner.

AIR QUALITY:

Air Quality	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Smoke	**X**				**x**				**X**					
Dust	**x**				**X**				**X**					
Action														
Smoke		**x**			**X**				**x**				**y**	**1**
Dust		**X**			**x**				**X**				**y**	**2**

Comments:

1. Hand piles along the north section lines in unit 1 of Turkey Trot would be burned.

2. Increased road traffic from contractor(s) commuting to thinning units may increase dust.

Air Quality Mitigations:

- Small hand piles would be burned in the spring or fall depending on conditions. DNRC would work closely with the Monitoring Unit of the Montana/Idaho Airshed Group and obtain special smoke dispersion forecasts in order to burn on only ideal days.
- Dust from thinning operations would be monitored.

Will the No-Action or Action Alternatives result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Historical or Archaeological Sites	**X**				**X**				**x**					
Aesthetics		**X**			**X**				**X**					

Will the No-Action or Action Alternatives result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Demands on Environmental Resources of Land, Water, or Energy	**X**				**x**				**X**					
Action														
Historical or Archaeological Sites	**X**				**X**				**X**					
Aesthetics		**X**			**X**					**X**			**Y**	**1**
Demands on Environmental Resources of Land, Water, or Energy	**X**				**X**				**X**					

Comments:

1. Lop-and-scattered slash from hand thinned units is often noticeable for 1-2 years post-treatment.

Mitigations:.

- If a thinning unit is lop-and-scattered, slash will usually settle after 1-2 years of snowload. As the slash settles and decomposes it becomes less noticeable.

OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: *List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

- MSO East FY16 PCT EA
- MSO East FY 17 PCT EA

Impacts on the Human Population

Evaluation of the impacts on the proposed action including **direct, secondary, and cumulative** impacts on the Human Population.

Will the No-Action or Action Alternatives result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Health and Human Safety	**x**				**X**				**X**					
Industrial, Commercial and Agricultural Activities and Production	**x**				**X**				**X**					

Will the No-Action or Action Alternatives result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Quantity and Distribution of Employment	**x**				**X**				**X**					
Local Tax Base and Tax Revenues	**X**				**X**				**X**					
Demand for Government Services	**X**				**X**				**X**					
Access To and Quality of Recreational and Wilderness Activities	**X**				**X**				**X**					
Density and Distribution of population and housing	**X**				**X**				**X**					
Social Structures and Mores	**X**				**X**				**X**					
Cultural Uniqueness and Diversity	**X**				**X**				**X**					
Action														
Health and Human Safety	**X**				**X**				**X**					
Industrial, Commercial and Agricultural Activities and Production	**x**				**X**				**X**					
Quantity and Distribution of Employment		**X**			**X**				**X**				**N/A**	**1**
Local Tax Base and Tax Revenues	**X**				**X**				**X**					
Demand for Government Services	**X**				**X**				**X**					
Access To and Quality of Recreational and Wilderness Activities	**X**				**X**				**X**					
Density and Distribution of population and housing	**X**				**X**				**X**					
Social Structures and Mores	**X**				**X**				**X**					
Cultural Uniqueness and Diversity	**X**				**X**				**x**					

Comments:
The project size is of a scale that would not have a large effect on local employment; however each unit may provide a private contractor with 1-3 months of employment for his/herself and his/her employees.

Mitigations:
N/A

Locally Adopted Environmental Plans and Goals: *List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*
None

Other Appropriate Social and Economic Circumstances:

No Action: The No Action alternative would generate no cost to the Trust at this time, existing forest conditions would persist.

Action: The proposed pre-commercial thinning would initially generate cost to the Trust; however this would be an investment in increased productivity for the stand. This increased productivity should result in increased volume, available at an earlier date.
Direct Costs associated with this project are estimated to be $49,500. This figure is achieved by multiplying the estimated number of acres 220 by estimated cost per acre $225. This cost estimate is assumed from last project sold at SWLO. The assumed cost should be recovered, by a net increase in growth, thus lessening rotation between harvests by up to thirty years.

References

DNRC 1996. State forest land management plan: final environmental impact statement (and appendixes). Montana Department of Natural Resources and Conservation, Forest Management Bureau, Missoula, Montana.

DNRC. 2010. Montana Department of Natural Resources and Conservation Forested State Trust Lands Habitat Conservation Plan: Final EIS, Volume II, Forest Management Bureau, Missoula, Montana.

Does the proposed action involve potential risks or adverse effects that are uncertain but extremely harmful if they were to occur?
NO

Does the proposed action have impacts that are individually minor, but cumulatively significant or potentially significant?
NO

Environmental Assessment Checklist Prepared By:

Name: Amy Helena
Title: Forest Management Supervisor
Date: 9/8/2017

Finding

Alternative Selected
The Action Alternative

Significance of Potential Impacts

A. The Action Alternative meets the specific Objectives of the Proposed Action as described on page 1 of the EA. The Action Alternative is likely to produce an economic return to the Acquired Lands Trust in the long run, while providing a mechanism whereby the existing timber stands would be moved towards conditions more like those which existed historically.

B. The analysis of identified issues did not disclose any reason compelling the DNRC to not implement this pre-commercial thinning project.

C. The Action Alternative includes mitigation activities to address environmental concerns identified during the project analysis.

Need for Further Environmental Analysis

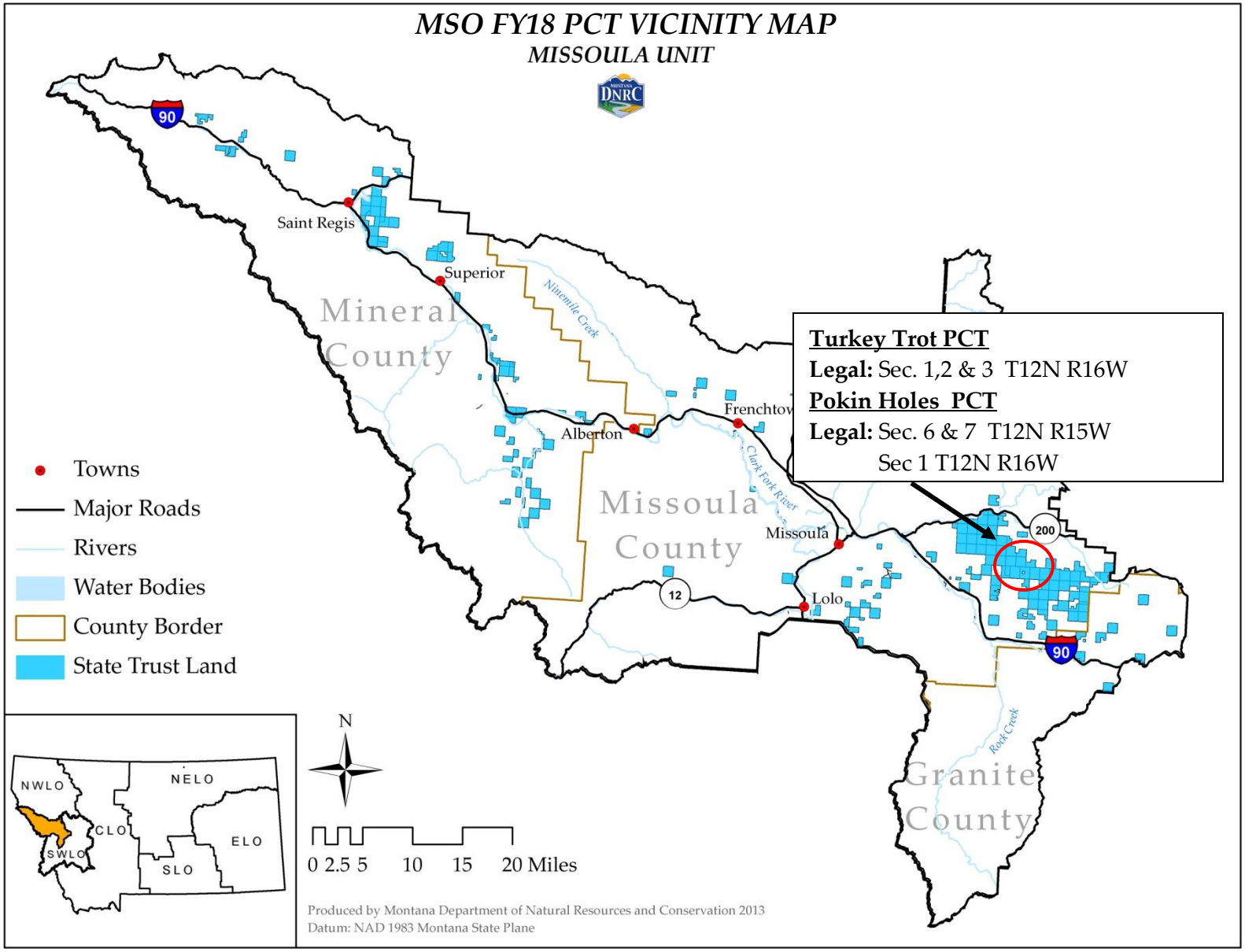
[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

Environmental Assessment Checklist Approved By:

Name: Jonathan Hansen
Title: Missoula Unit Manager
Date: October 4, 2017
Signature: /s/ *Jonathan Hansen*

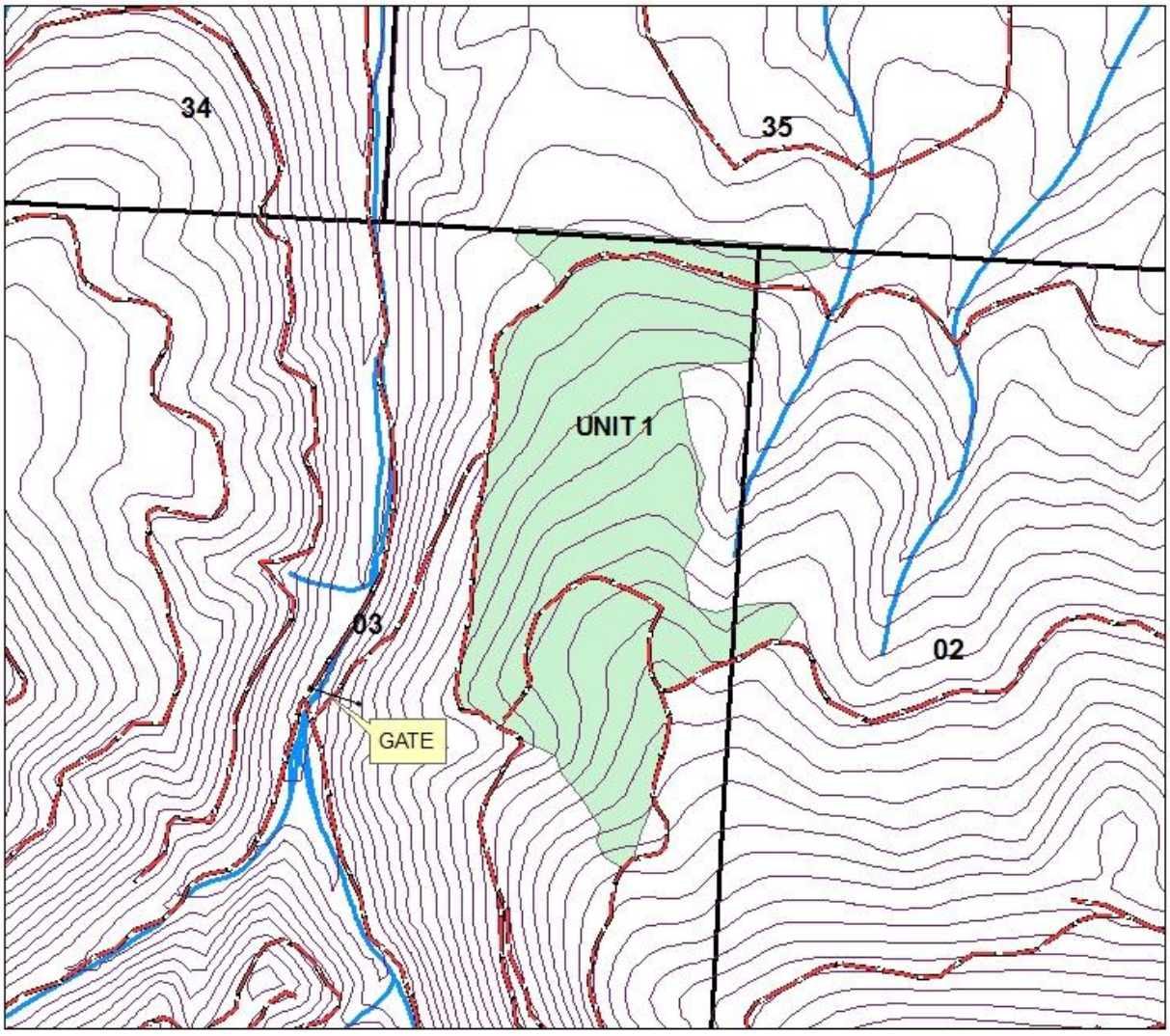
Attachment A- Maps

A-1: Timber Sale Vicinity Map



ATTACHMENT A-2

Turkey Trot Unit 1 PCT
Sections 2,3 T12N R16W
DNRC-MISSOULA UNIT



0 0.1 0.2 0.4 0.6 0.8 Miles

Leave only those trees exhibiting quality characteristics (no forked tops, crook, disease or insects). No lazy straps, high stumps or live limbs will be permitted. The species order of preference is WL, PP, DF, LPP. Pile interior for a chain along north property line, Keep slash out of SMZ's.

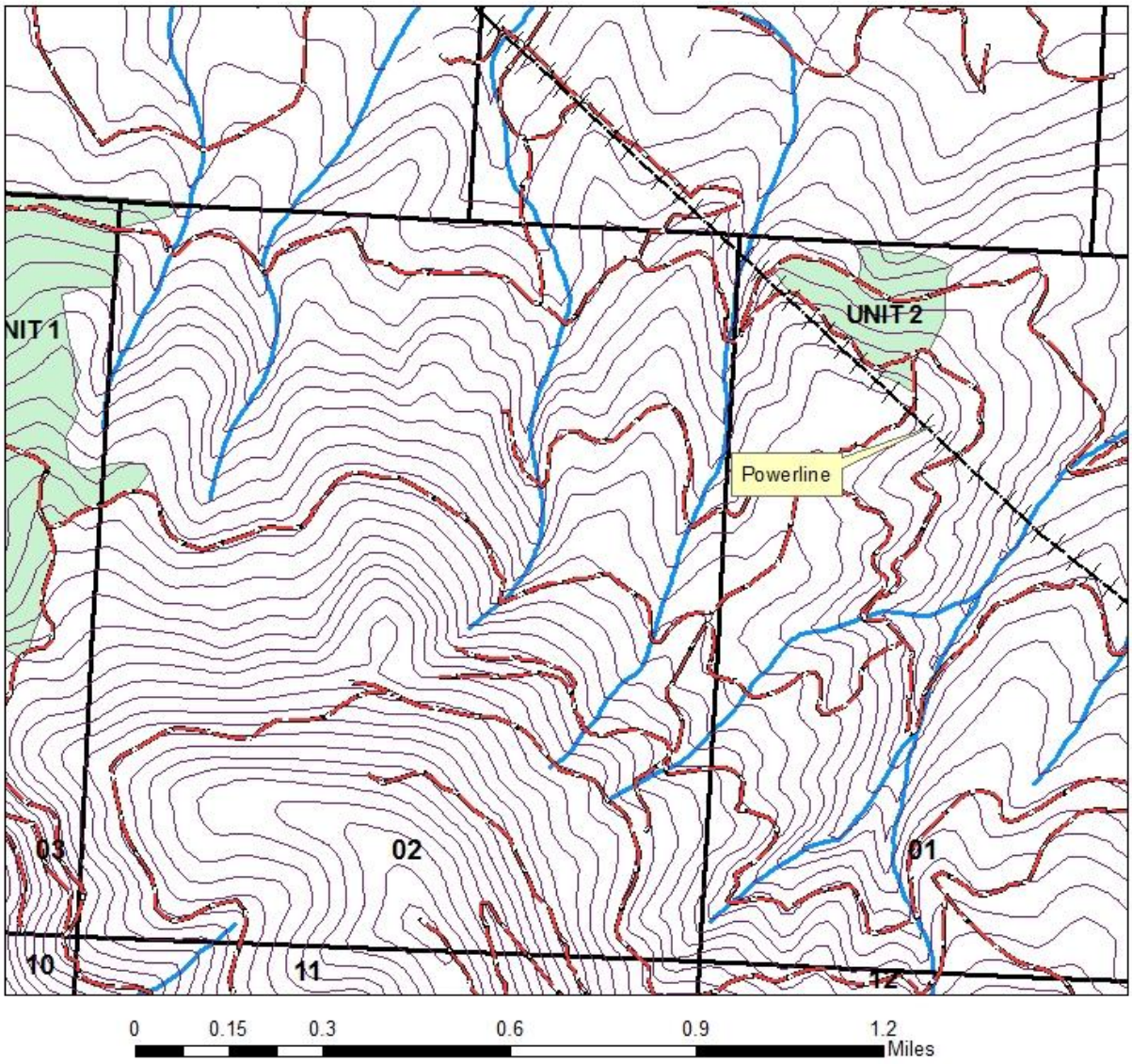
Spacing requirements:
Unit 1 (111 acres): 14' X 14'. See contract specs for details

Unit Boundary: Pink and Blue Flags Flags and Purple Three Stripe Paint

Roads
Turket Trot Unit
Streams

A. Helena
9/2/17

Turkey Trot Unit 2 PCT
Section 1 T12N R16W
DNRC-MISSOULA UNIT



Leave only those trees exhibiting quality characteristics (no forked tops, crook, disease or insects). No lazy straps, high stumps or live limbs will be permitted. The species order of preference is WL, PP, DF, LPP. Pile interior for a chain along north property line, Keep slash out of SMZ's.

Spacing requirements:
Unit 2 (23 acres): 14' X 14'. See contract specs for details

Unit Boundary: Pink and Blue Flags Flags and Purple Three Stripe Paint

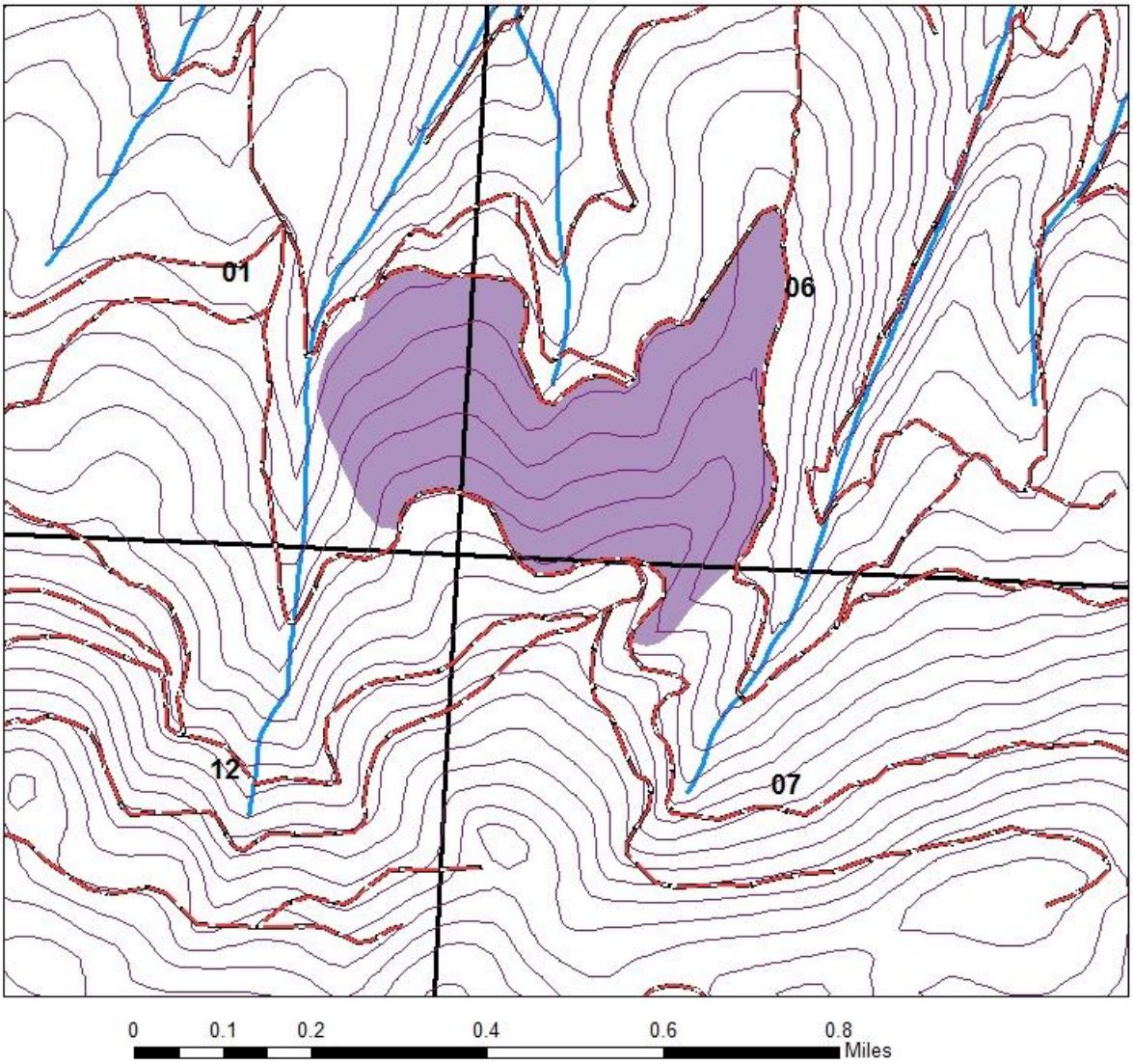
Roads

Turket Trot Unit

Streams

A. Helena
9/2/17

Pokin Holes
Section 1 T12N R16W & Section 6 & 7 T12N R15W
DNRC-MISSOULA UNIT



Leave only those trees exhibiting quality characteristics (no forked tops, crook, disease or insects). No lazy straps, high stumps or live limbs will be permitted. The species order of preference is WL, PP, DF, LPP. Keep slash out of SMZ's.

Spacing requirements:
Unit (86 acres): 14' X 14'. See contract specs for details

Unit Boundary: Pink and Blue Flags Flags and Purple Three Stripe Paint

Roads
Pokin Holes
Streams

A. Helena
7/7/2016